

Kodosky concerns the modeling of electronic instruments. These are totally different.

- No suggestion or motivation has been shown to combine the teachings of Kodosky with those of Marshall, nor has any expectation of success been shown with regard to such a combination.
- Kodosky fails, either alone or in combination with Marshall, to teach all limitations of the present claims. Specifically,
 - Kodosky teaches the processing of objects (virtual laboratory instruments) that are specified in a processor-specific manner, that is, they are not specified independently of the processor(s) that will act on them; and
 - Marshall teaches financial instruments represented by visual “metaphors” in a virtual world – while Marshall involves processing events relative to those “metaphors,” it does not teach representing an instrument as an event stream; i.e., Marshall lacks an “event representation” of any financial instrument.

The above points will be discussed in relation to claim 21, which is the base claim of all of the currently pending claims. For the Examiner’s reference, a copy of claim 21 as previously amended is included in the sheet attached at the end of this paper.

1. Kodosky is Nonanalogous

Kodosky relates to the “LabVIEW” system, a graphical development environment for scientific and engineering test, measurement and control applications, which uses “virtual instrumentation.” What Kodosky means by “instruments” are electronic instruments, such as voltmeters, frequency meters, oscilloscopes, temperature gauges, etc. The present application, of course, concerns the modeling of financial instruments, such as financial options, puts, calls, derivatives, etc. These are documents containing a legal right or obligation of a contractual nature. Needless to say, laboratory “instruments” are far afield from financial instruments. The classifications are indicative: the present invention is currently classified in class/subclass 705/35 (financial data processing), whereas Kodosky is classified in classes and subclasses concerned with iconic graphic user interfaces (715/846; 715/835), a subject not mentioned in the present application.

According to MPEP 2141.01(a), “[i]n order to rely on a reference as a basis for rejection of an applicant’s invention, a reference must either be in the field of applicant’s endeavor, or if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.”

Kodosky is certainly not in Applicant’s field of endeavor. Nor, as we will discuss, is Kodosky “reasonably pertinent” to the problem addressed in claim 21.

2. No Suggestion or Motivation to Combine

A *prima facie* case of obviousness requires “some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.” MPEP 2143. There must also be a reasonable expectation of success in such a proposed combination. *Id.*

The fact that one of the cited references comes from such a remote field makes it even more important for the Examiner to have provided a basis for the conclusion that it would have been obvious to a person of ordinary skill in the art to have combined its teachings with those of another reference. In support of the rejection, the Examiner proposes an analogy between, on the one hand, processing by acting upon the “event representation” of a financial instrument (comprised of payments, option exercises, etc.), and, on the other hand, the processing of executable code representing components of electronic instruments in a laboratory instrumentation system. In addition to the fact (about to be discussed below) that newly cited reference describes processing that is fundamentally incompatible with the processing defined in the present invention, it also appears that the Examiner has not cited any rationale for the proposed combination, even if the reference in question had any relevance, which it does not. In particular, the Examiner has articulated no reason why a person of ordinary skill in the field of financial systems would be motivated to look into the field of laboratory instrumentation in order to come up with suggestions for processing contract rights, or to have any basis for expecting success based on such a combination.

MPEP 2143.01 states: “A statement that modifications of the prior art to meet the claimed invention would have been ‘well within the ordinary skill of the art at the time the invention was made’ is not sufficient to establish a *prima facie* case of obviousness

without some objective reason to combine the teachings of the references.” Here, in a similar form of rejection, the Examiner recited simply that “it would have been obvious for an artisan of ordinary skill in the art to integrate the features of Kodosky into Marshall. . .” (Action at page 4) – without providing any reason why it would have been obvious to make such a combination. Such a conclusory recitation is not sufficient to support a rejection under 35 U.S.C. § 103 (a).

3. Kodosky is Irrelevant in any Event

(a) Lack of “Independence.” Claim 21 contains the limitation “wherein said representation [i.e., the “event representation of the instrument] is specified independently from said at least one processor.” Kodosky discloses nothing of the sort.

First, the rejection necessarily presupposes that the “event representation” of a financial instrument can be compared, with regard to its processing, to the “executable code functions” created in Kodosky to implement components of electronic instruments. Applicant believes this is a strained analogy because the objects in question are so different. Nevertheless, even accepting such an analogy for purposes of argument, the “processing” that Kodosky performs on these “executable code functions” is simply not independent from the specification of the executable code elements. This rules out any applicability of Kodosky to claim 21.

It is clear, in fact, that the executable code elements of Kodosky are *specific* to the processor employed to process them. This can be readily seen from the manner of their creation, which is via clicking on predefined functions provided in GUI menu selections (see Fig. 33 of Kodosky). The pre-defined functions are in turn implementations of a specified list of primitives supported by the processor, including “sequence,” “conditional,” “iterative loop,” “indefinite loop,” etc. - as described at length in connection with Figs. 8 - 18 of Kodosky, see col. 9, line 65 - col. 10, line 9, and col. 10, line 54 - col. 13, line 66. Every “executable code function” to be “processed” in accordance with Kodosky must be specified in advance in accordance with the provided processor-specific functions, as shown at col. 24, lines 30-66 of Kodosky.

Furthermore, as explained in Applicant’s previous submission (March 2, 2004), the “independence” aspect of claim 21 implies the ability to have a “many-to-many” relationship between instruments and processors. This feature permits there to be a plurality

of (or different) processors for an instrument (and vice-versa). The present invention provides a system wherein financial instruments are specified without reference to the particular type of processor that will process them, and thus are free to be processed by a plurality of processors of different types. See the specification at page 7, lines 12-20, which provides an illustrative example of providing three alternate processors for a financial “option” instrument. See also the right-hand column of Fig. 7 of the present application (a copy of which is also reproduced in the sheet attached at the end of this paper), which provides a graphic illustration of alternative processors for an instrument.

Laboratory instruments are very different from financial instruments in this regard. Normally, one would not even *want* alternative ways to process a laboratory instrument, e.g., alternative ways to set a potentiometer or take a temperature reading. Unsurprisingly, Kodosky does not provide any such feature.

Moreover, it is not just that case that Kodosky is silent with regard to this aspect of the present invention; in fact the teachings that Kodosky does contain are entirely *antithetical* to the present invention. In Kodosky, there is only one processor per instrument. Indeed, there is only one processor in the entire system of Kodosky: see col. 35, lines 30-34, which unequivocally states: “there is but one processor on the computer.” This central aspect of Kodosky, together with the fact that, as discussed above, the “instrument specification” in Kodosky is processor-specific, is completely incompatible with what is claimed in claim 21. These aspects render Kodosky inappropriate as part of a combination to be applied under 35 U.S.C. § 103 (a). “If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” MPEP 2143.01. Put another way, Kodosky in its entirety, which structures all processing with reference to a single type of processor, “teaches away” from the present invention. See MPEP 2141.02.

Perhaps the Examiner was led to the conclusion he reached because of the discussion in Kodosky of the ability to process a plurality of instruments simultaneously. See for example col. 36, lines 37-42. While this disclosure may reflect a plurality of instruments that are handled independently *of each other*, it plainly says nothing about *whether the instruments are specified independently of the processor*, which, in

Kodosky, they are not. The ability *per se* to process a plurality of instruments is irrelevant to the subject matter actually claimed by claim 21.

(b) Lack of an “Event Representation.” Claim 21 also contains the limitation “wherein said representation comprises a static representation and an event representation of said instrument.” The rejection is based on the assumption that at least one of the references – which according to the Examiner’s recitation would be Marshall – discloses an “event representation” of a financial instrument. This is incorrect.

The word “representation” is commonly defined in the present context as something that “serve[s] as a specimen, example or instance of” the matter being represented (Merriam-Webster’s Collegiate Dictionary (11th ed., 1983)), or that “signif[ies], symbolize[s] or embod[ies]” that matter (Compact Oxford English Dictionary (2005)).

Marshall teaches the representation of financial instruments as “metaphors” – depicted as graphical visual elements – in a virtual world. Marshall also discloses providing “a stream of financial information” specifically described as “real time data about financial markets,” col. 4, lines 30-32, which information is used at various points in the processing described in Marshall. The stream of information constitutes selected data “about” financial instruments, essentially, “ticker” data. This information pertains to the “metaphors” but does not in itself constitute the “representation” of any instrument. It is the “metaphors” of Marshall, and not the market data, that comprise the instrument “representations.”

According to the specification of the present invention, an “event representation” of a financial instrument is a time line of inter-related events that is specific to the static representation of the instrument, constitutes in its entirety the financial event structure of the instrument, and can always be exactly reproduced from the static representation of the financial instrument. See specification, pages 9-14. This disclosure from the present specification describes a “representation” of a financial instrument, as such term is commonly defined, in terms of the events that occur over the life of the instrument.

By contrast, nothing disclosed in Marshall, other than the graphical metaphors, fits the commonly understood definition of the term “representation.” As for the metaphors of Marshall themselves, while they denote financial instruments, they do not depict

them in terms of events. Thus, an “event representation” of a financial instrument in accordance with claim 21 is lacking from Marshall.

* * * * *

The substance of the present rejection was that the teachings of Kodosky suggest how to perform different kinds of processing on the event representations of financial instruments as disclosed by Marshall. But as discussed, (a) Kodosky concerns a fundamentally different form of processing (wherein instruments are specified in a processor-dependent manner, as opposed to independently), and (b) Marshall fails to disclose the “event representation” of any financial instrument.

In sum, Applicant submits that, in addition to being nonanalogous, Kodosky is itself irrelevant and that the combination of Kodosky and Marshall fails to disclose two separate and distinct claim limitations.

Accordingly, Applicant respectfully requests that the Examiner reconsider the case in light of the foregoing and withdraw the present rejection. The Applicant asks that the Examiner reconsider in particular the discussion at pages 6-7 of Applicant’s March 2, 2004 submission and the aforementioned definitions of “static” and “event” representations of financial instruments at pages 9-14 of the specification and Fig. 7 of the drawings. If after such reconsideration the Examiner is still of the view that Kodosky and Marshall are pertinent to the present application, Applicant would appreciate the opportunity of an interview prior to further action.

Claims 22-23 and 25-33

In the preceding remarks, Applicant has primarily addressed claim 21. However, since Applicant submits that claim 21 is patentable over the cited references, Applicant argues on the same basis that the remaining claims, 22-23 and 25-33, each of which is dependent from claim 21 and incorporates all of the limitations of claim 21, are patentable as well. Thus, this submission addresses all of the rejected claims.

Information Disclosure Statement

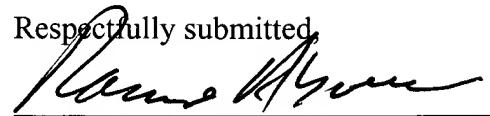
As previously noted, an information disclosure statement (“IDS”) remains outstanding. Applicant respectfully requests that the Examiner consider and make of record the references cited therein. If necessary, Applicant can provide replacement copies.

CONCLUSION

The Applicant earnestly solicits withdrawal of the present rejection and early allowance of the application.

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Respectfully submitted,



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ATTACHMENT

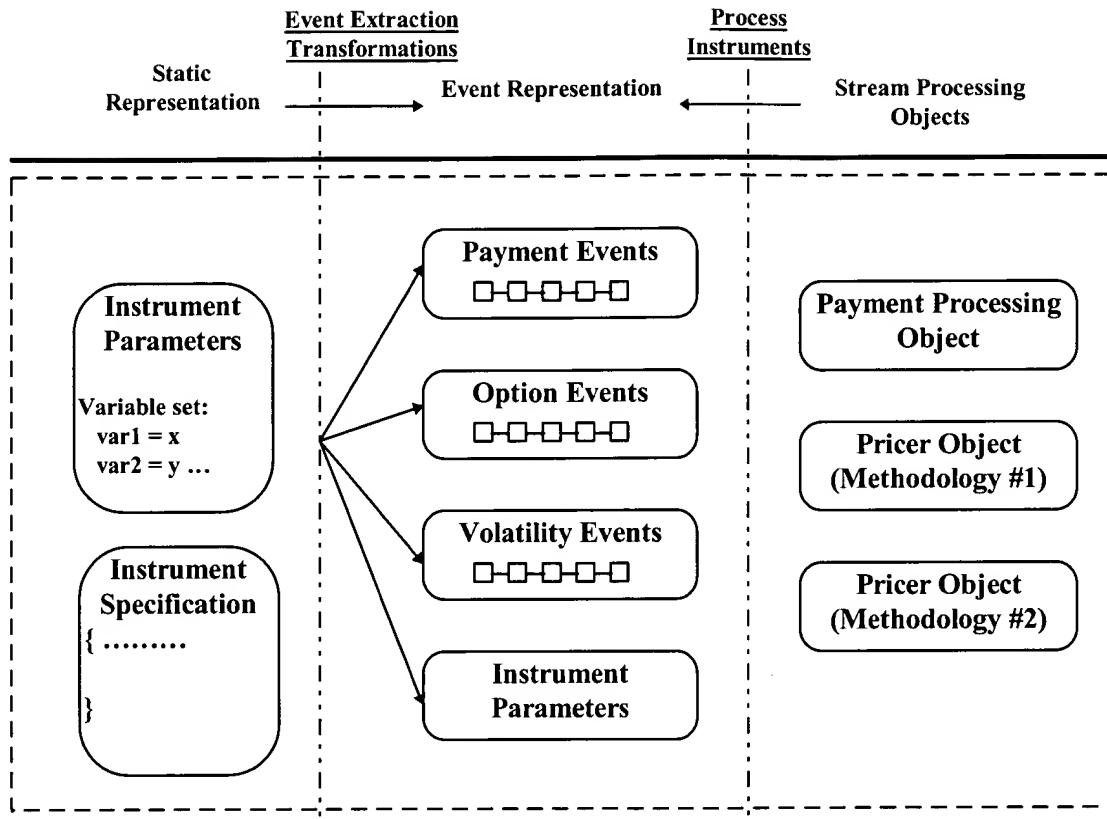


Figure 7 - Event Stream Representation

Text of Claim 21 (as previously amended)

A method for processing financial instruments comprising a representation of said instrument and at least one processor, wherein said representation comprises a static representation and an event representation of said instrument and said at least one processor performs said processing by acting upon the events of said event representation, and wherein said representation is specified independently from said at least one processor.